Photographic Log

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

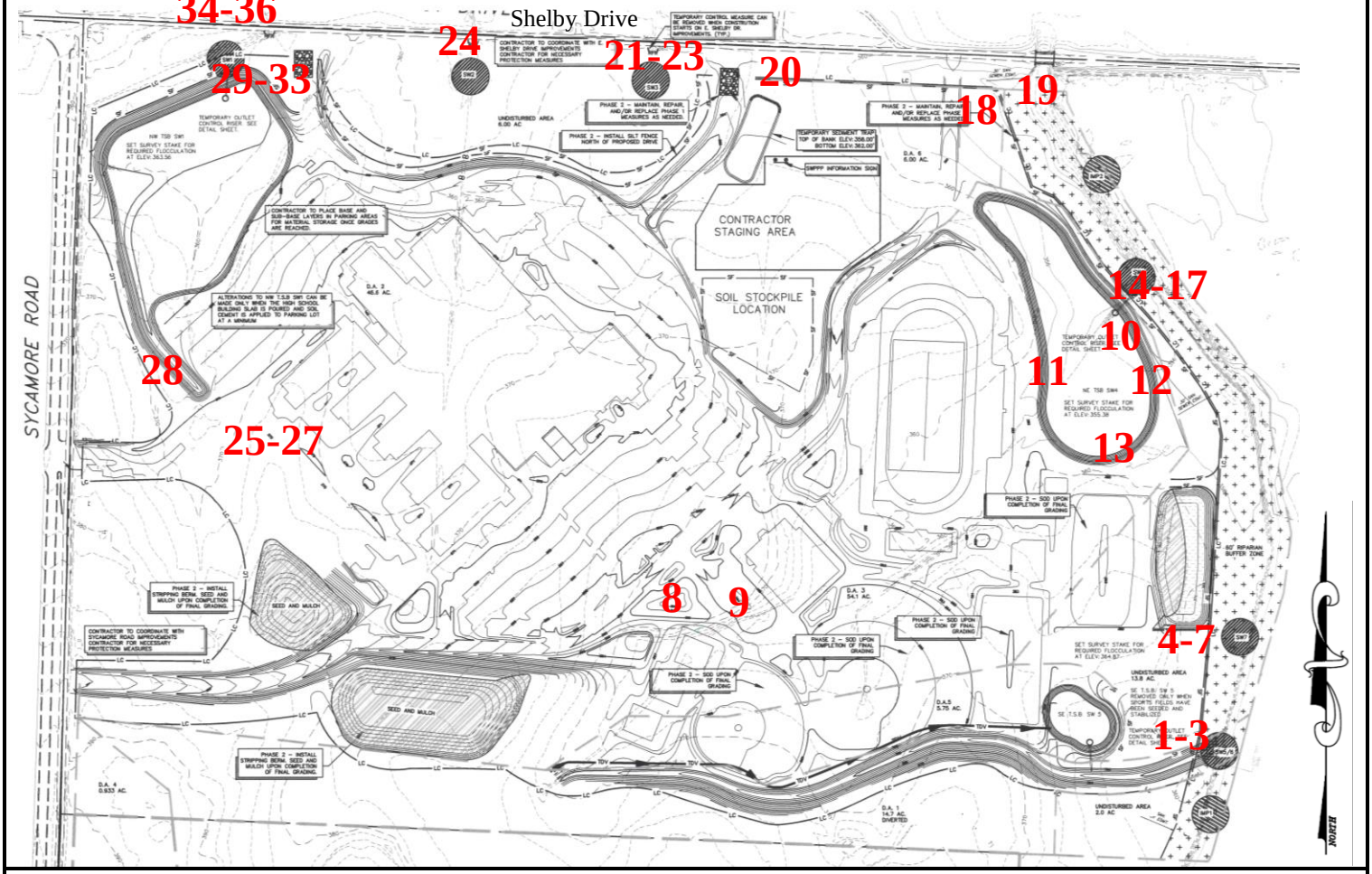

Photo Location Map 1. Part of the revised EPSC plan received August 4, 2016. The approximate locations of where photos in this document were taken on October 10, 2016, are shown in red.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 1. Sign identifying the approximate location of Outfalls SW5 and SW6 near the bank of the unnamed tributary of Nonconnah Creek.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 2. View of the unnamed tributary of Nonconnah Creek near Outfalls SW5 and SW6. The banks of the stream had been stabilized with rip-rap and had been sprayed with hydroseed. The bank stabilization work is authorized under the Aquatic Resources Alteration Permit NRS1605.039. Hydroseed was also observed on the rip-rap placed on both banks. The slope of the right descending bank (shown here) appeared to be very steep. No discharge from Outfalls SW5 and SW6 was observed during the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 3. Close-up view of the hydroseed covering the substrate in the unnamed tributary of Nonconnah Creek near Outfalls SW5 and SW6. The water in the stream at this location appeared clear and had very little flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 4. View of Outfall SW7 that was depicted in the individual construction permit modification application and SWPPP modification received August 4, 2016. Sod and rip-rap had been utilized to stabilize the discharge channel draining to Outfall SW7 and hydroseed had been applied to the surrounding area. No discharge from Outfall SW7 was observed during the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 5. View looking upstream from Outfall SW7. Hydroseed was also observed on the rip-rap placed on the both banks of the unnamed tributary of Nonconnah Creek. The water in this portion of the unnamed tributary of Nonconnah Creek appeared fairly clear and had very little flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 6. Another view looking upstream at Outfall SW7 from the preexisting stream crossing. Hydroseed was also observed on the rip-rap placed on the both banks of the unnamed tributary of Nonconnah Creek. The water in this portion of the unnamed tributary of Nonconnah Creek appeared fairly clear and had very little flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 7. Close-up view of the hydroseed covering a portion of the substrate in the unnamed tributary of Nonconnah Creek near Outfall SW7. The water in the stream at this location appeared clear and had very little flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 8. The existing farm pond was being dewatered via a pump into the stormdrain system that discharges into the NE sediment basin.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 9. View of the portion of the stormdrain system that water from the existing pond was being discharged into. This portion of the stormdrain system drains into the NE sediment basin.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 10. The NE sediment basin, which discharges to SW4, appeared to have been completed and was holding turbid water. The required water depth gauge within the basin had not been installed.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 11. From the maturity of the sparse vegetation on the banks of the NE sediment basin, it appeared that activity in this area had ceased for over 14 days and the area had not been sufficiently stabilized.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 12. Vertical tracking was observed on the unstable banks of the NE sediment basin. Vertical tracking on bare soil slopes will increase stormwater runoff velocity and promote rill and gully formation.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 13. The presence of a rill on the unstable south bank of the NE sediment basin indicates that runoff velocities have not been sufficiently slowed.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 14. The outlet pipe serving the NE sediment basin that discharges to Outfall SW4 had been installed, but the surrounding slope had not been stabilized. No sign identifying Outfall SW4 was observed.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 15. Sediment was observed inside the outlet discharge pipe serving the NE sediment basin. This is the same outlet pipe that is shown in Photo 12. This pipe discharges to Outfall SW4.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 16. It appeared that the rip-rap outlet protection placed downgradient of the outlet pipe had been covered with sediment discharged from the sediment basin. This is the same area that is shown in Photo 14.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 17. The water in the unnamed tributary of Nonconnah Creek downgradient of the NE sediment basin outlet pipe near Outfall SW4 appeared slightly turbid and had very little flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 18. Sign identifying the approximate location of instream monitoring point IMP2 near the Shelby Drive bridge.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 19. Looking upstream at the unnamed tributary of Nonconnah Creek from the Shelby Drive bridge. This is also the approximate location of instream monitoring point IMP2. The water in the unnamed tributary of Nonconnah Creek at IMP2 appeared slightly turbid and had very little flow when observed from the Shelby Drive bridge.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 20. The required signage identifying the primary permittee, phone number, NPDES permit tracking number and permitting authority information was observed on Shelby Drive. However, Shelby Drive has been closed for widening and is no longer accessible by the public. An additional sign should be placed near the main entrance located on Sycamore Road.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 21. Sign identifying the approximate location of Outfall SW3.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 22. View looking east of Outfall SW3 at a cleared portion of the site. This area needs to be stabilized if construction activity will not occur within 14 days. The period of time that this area has been inactive was unknown at the time of the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 23. View looking west of Outfall SW3 at a cleared portion of the site. This area needs to be stabilized if construction activity will not occur within 14 days. The period of time that this area has been inactive was unknown at the time of the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 24. Sign identifying the approximate location of Outfall SW2. Note the drainage channel discharging into Outfall SW2 is not stable and the area around the discharge channel is not stable. This area needs to be stabilized if construction activity will not occur within 14 days. The period of time that this area has been inactive was unknown at the time of the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 25. Dried sediment was observed on top of the stormdrain inlet located near the drainage channel that discharges into the NW sediment basin. This indicates that sediment laden stormwater had pooled over the stormdrain inlet at some point.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 26. Sediment accumulation (red arrows) was observed on the outlet structure that discharges stormwater that enters the stormdrain inlet shown in Photo 25. This indicates that sediment has entered the stormdrain system and discharged at this location. This outlet structure discharges to a partly sodded channel that drains to the NW sediment basin.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 27. Sediment accumulation and a high water mark stain (red arrow) were also observed inside the outlet pipe that discharges water that enters the stormdrain system through the inlet shown in Photo 25.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 28. View looking southeast at the unstable drainage channel where numerous rills were observed leading to the NW sediment basin. From the maturity of the sparse vegetation within and on the banks of the unstable drainage channel, it appeared that activity in this area had ceased for over 14 days and the area had not been sufficiently stabilized. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 29. The NW sediment basin that discharges to Outfall SW1 appeared to have been completed and was holding water. The required water depth gauge within the basin had not been installed.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 30. From the maturity of the sparse vegetation on the banks of the NW sediment basin, it appeared that activity in this area had ceased for over 14 days and the area had not been sufficiently stabilized. Rills were observed on the unstable banks of NW sediment basin. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by both the TN Construction General Permit and the TN Individual Construction Permit TN0081787.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 31. A puddle of turbid water was observed downgradient of the discharge outlet serving the NW sediment basin. The discharge channel had steep slopes and was not stable and no outlet protection was observed downgradient of the discharge outlet. From the maturity of the sparse vegetation on the steep slopes downgradient of the discharge outlet, it appeared that activity in this area had ceased for over 7 days and the area had not been sufficiently stabilized.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 32. View facing Shelby Drive of the discharge outlet serving the NW sediment basin shown in Photo 31. The discharge channel had steep slopes and was not stable and no outlet protection was observed downgradient of the discharge outlet. From the maturity of the sparse vegetation on the steep slopes downgradient of the discharge outlet, it appeared that activity in this area had ceased for over 7 days and the area had not been sufficiently stabilized.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 33. Silt fence had been installed across the direct flow path of the discharge channel between the NW sediment basin outlet structure and Outfall SW1. According to the *Tennessee Erosion Prevention and Sediment Control Handbook*, silt fence should not be placed in the areas of concentrated flow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 34. Sign identifying the approximate location of Outfall SW1. The drainage channel leading to Outfall SW1 was unstable and had steep banks. Stormwater from the construction site enters into the pipe shown here and flows under Shelby Drive. No discharge from Outfall SW1 was observed during the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 35. Slightly turbid water was observed downgradient of Outfall SW1 on the north side of Shelby Drive. The pipe visible in this photo receives drainage from the construction site through Outfall SW1. The direction of flow is indicated with a red arrow. No discharge from Outfall SW1 was observed during the inspection.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/10/2016

Photo 36. View of sediment accumulation near the north opening of the pipe that runs under Shelby Drive shown in Photos 34 and 35. Outfall SW1 discharges through this pipe. The direction of flow is indicated with a red arrow.

Photos from this point on were taken during the October 14, 2016, inspection

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

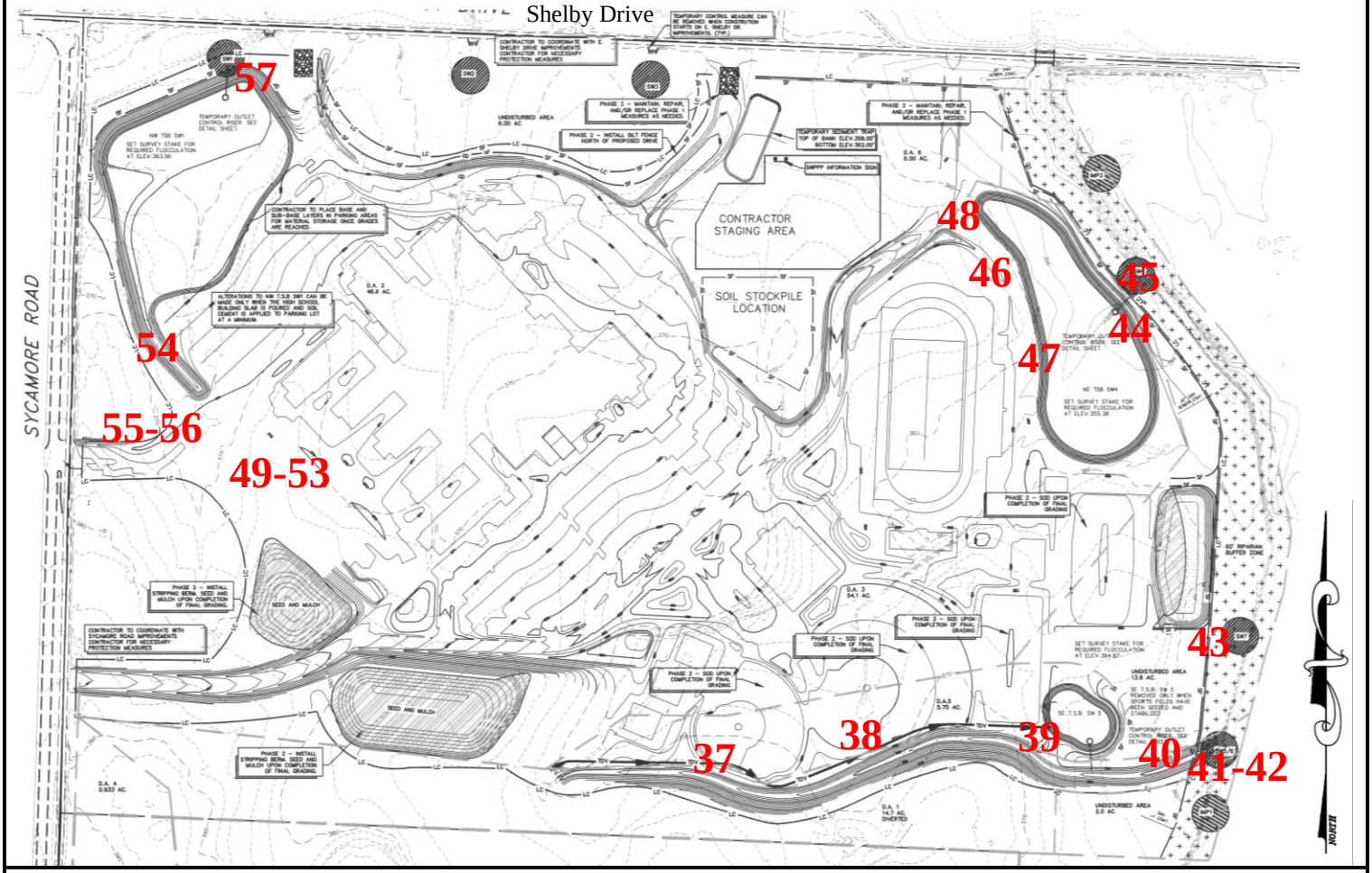

Photo Location Map 2. Part of the revised EPSC plan received August 4, 2016. The approximate locations of where photos in this document were taken on October 14, 2016, are shown in red.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 37. Sediment and sediment laden stormwater flowing under the silt fence and entering the permanent grass lined diversion ditch on the south side of the construction site. The permanent grass lined diversion ditch discharges into an unnamed tributary of Nonconnah Creek at Outfall SW6. The direction of flow is indicated with a red arrow. Note the water up-gradient of the sediment plume (blue arrow) is less turbid.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 38. Sediment laden stormwater flowing over the silt fence and entering the permanent grass lined diversion ditch that discharges into an unnamed tributary of Nonconnah Creek at Outfall SW6. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 39. Sediment and sediment laden stormwater flowing under the silt fence and entering the permanent grass lined diversion ditch that discharges into an unnamed tributary of Nonconnah Creek at Outfall SW6. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 40. View of sediment laden stormwater flowing through the permanent grass lined diversion ditch to Outfall SW6. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 41. Sediment laden stormwater from the permanent grass lined diversion ditch discharging into the unnamed tributary of Nonconnah Creek (i.e., waters of the state) at Outfall SW6. The instream water velocity up-gradient of Outfall SW6 appeared to be slower than the water velocity down gradient of the discharge point. This is represented by the observed sediment plumes moving upstream from the discharge point, indicating the instream flow at that location was not fast enough to flush the sediment plumes downstream. It appeared that runoff from the construction site had contributed to the increased flow within the stream at the observed outfalls associated with the unnamed tributary of Nonconnah Creek. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 42. Close-up view of the color contrast created by the sediment laden discharge from the construction site into the unnamed tributary of Nonconnah Creek. The instream water velocity up-gradient of Outfall SW6 appeared to be slower than the water velocity down gradient of the discharge point. This is represented by the observed sediment plumes moving upstream from the discharge point, indicating the instream flow at that location was not fast enough to flush the sediment plumes downstream. It appeared that runoff from the construction site had contributed to the increased flow within the stream at the observed outfalls associated with the unnamed tributary of Nonconnah Creek. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 43. No discharge was observed at Outfall SW7; however, the water in the stream at this location was very turbid Outfall SW7 is located downstream of Outfall SW6. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 44. View of the riser structure serving the NE sediment basin. The water level in the basin was much higher than during the previous inspection on October 10, 2016 (Photo 10). In addition to receiving stormwater runoff from the occurring rain event, the existing farm pond was dewatered into the stormdrain system that discharges into the NE sediment basin (Photos 8 and 9). The required water depth gauge within the basin had not been installed.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 45. There was no discharge observed from the NE sediment basin at Outfall SW4, but it appeared that the water elevation in the unnamed tributary of Nonconnah Creek was high enough to backflow into the discharge channel that serves the NE sediment basin. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 46. View of a rill that had formed on the bank of the NE sediment basin since the October 10, 2016, inspection. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 47. View of the large rill that had formed on the bank of the NE sediment basin near the stormdrain outlet since the October 10, 2016, inspection. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 48. View of the large rill that had formed on the bank of the NE sediment basin since the October 10, 2016, inspection. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 49. Sediment laden stormwater was observed flowing into the stromdrain system through a stormdrain inlet located near the partly sodded drainage channel that discharges into the NW sediment basin. This is the same stormdrain inlet that is shown in Photo 25.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 50. Stormwater that enters the stormdrain system through the inlet shown in Photo 49 is discharged into the partly sodded channel through an outlet structure that is surrounded by eroding soil and no sediment control measures were installed. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 51. Another view of the stormdrain outlet shown in Photo 50. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 52. Once discharged into the partly sodded channel the sediment laden stormwater flowed through a check dam and into a culvert under an entrance road located north of the main construction entrance. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 53. Close-up view of the culvert shown in Photo 52. The area around the culvert inlet had not been stabilized and rills and gullies had started to form around the inlet. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 54. The outlet side of the culvert shown in Photo 53 discharges into an unstable and eroding drainage channel that discharges into the NW sediment basin. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 55. Stormwater entering the construction site on the north side of the entrance road located north of the main construction entrance was creating a rill and transporting sediment laden stormwater to the unstable drainage channel shown in Photo 54. The direction of flow is indicated with a red arrow. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 56. View looking down gradient from the location shown in Photo 55. Stormwater entering the construction site on the north side of the entrance road located north of the main construction entrance was creating a rill and transporting sediment laden stormwater to the unstable drainage channel shown in Photo 54. EPSC measures have not slowed runoff so that rill and gully formation is prevented as required by the TN Individual Construction Permit TN0081787. The direction of flow is indicated with a red arrow. The direction of flow is indicated with a red arrow.

Site Name:	Tracking No.:	Date:
Collierville High School	TN0081787	10/14/2016

Photo 57. View of the NW sediment basin. It appeared that the sediment basin had a sufficient volume to contain the rain event. The required water depth gauge within the basin had not been installed.